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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Robert J. Monson Attorney file 5360
Serial No.: 09/490,680 Examiner: Wujciak
Filed: 1/24/00 Group: 3632
For: USER COUPLED WORKSPACE SHOCK ISOLATION SYSTEM

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Honorable Commissioner of Patents and Trademarks
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Sir:

REMARKS

The applicant wishes to thank Examiner Wujciak and Supervisor Examiner Leslie Braun for the courtesy of a telephone interview on U.S. application 09/490,680. The purpose of the interview was to discuss a prior art reference, DeGroat U.S. patent 5,277,584. More specifically, the office had contented that the DeGroat patent 5,277,584 has a shock mount that provides:

"vibration damping, isolates the operator station and platform from shock and vibration, and dampens vibration and shock" (Page 2-3 of the office action of 7/10/02)

During the telephone interview applicant's attorney pointed out that the DeGroat patent discloses a simulator that generates shock and vibration and therefore is not a shock mount and does not provide "vibration damping, isolates the operator station and platform from shock and vibration , and dampens vibration and shock". Examiner Wujciak and Supervisor Examiner Leslie Braun agreed.

The Examiners also stated that prior to the interview they had conducted a further search and uncovered new references Higuchi 5,984,036 and Miyake et al. 4,805,359. The applicant's attorney responds as follows to the citation of the Higuchi and Miyak et al references although no rejection has been made based on Higuchi 5,984,036 or Miyake et al. 4,805,359.

THE REJECTIONS IN THE OFFICE ACTION OF JULY 10, 2002

The office rejected claims 8-13 and 15-17 under 35 U.S.C. 102 as being anticipated by DeGroat and claim 14 under 35 U.S.C. 103 using DeGroat as a primary reference.

The rejection of claims 8-13 and 15-17 under 35 U.S.C. 102 as being unpatentable over DeGroat
In view of the Office's acknowledgment in the Telephone Interview of August 29, 2002 that DeGroat is a simulator as opposed to being a shock isolation system and the Interview Summary report of 9/6/02 that claim 8 does not read on DeGroat it is submitted the rejection of claims independent claim 8 and consequently dependent claims 9-13 and 15-17 under 35 U.S.C. 102 is in error and the official withdrawal of the rejection is requested.

The rejection of claim 14 under 35 U.S.C. 103(a) as being unpatentable over DeGroat
Similarly, In view of the Office's acknowledgment in the Telephone Interview of August 29, 2002 that DeGroat is a simulator as opposed to being a shock isolation system and the Interview Summary report of 9/6/02 that claim 8 does not read on DeGroat it is submitted that dependent claim 14 is allowable and an official withdrawal of the rejection is requested.

The newly cited Higuchi patent 5,984,036

A review of the Higuchi et al. patent 5,984,036 reveals that he teaches the use of an operator cabin 11 that forms an enclosure around an operator. The basic teaching of Higuchi et al is a contrary teaching

ce Higuchi et al. seeks to surround and confine an operator within a cabin which protects the operator from injury from external objects. Applicant seeks to protect an operator from internal objects such as equipment which is located on the operator platform. By placing an enclosure or cabin around the operator increases the operators chances for injury since now the operator has the added risk of being injured by being thrown against the operator's cabin.

While the general operator enclosure teaching of Higuchi et al. is a teaching contrary to the present invention, it is noted that Higuchi et al. also teaches a system that limits the spatial movement of his operator's cabin that is, the Higuchi et al. device does not spatially isolate his device. Note, Figure 3 of Higuchi et al. discloses that he has a link mechanism 30 that has "a pair of link plates 31 connected with each other rigidly by the connecting pipe 32" (Column 8 lines 28-30). He specifically states that the links are for the purpose of "preventing the cab body 11 from being titled largely in lateral directions". (Emphasis added) In contrast, the present invention provides a "unitary platform" which is spatially isolated. More specifically, Independent claim 8 of the present application calls our for use of the shock isolator as the sole support for the unitary platform with the unitary platform free to remain spatially fixed. Lines 6-8 of claim 8 are quoted below:

"a shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount so that the unitary platform is free to remain spatially fixed to isolate the unitary platform from the effects of high "g" shocks" (emphasis added)

Accordingly, it is submitted that the Higuchi et al fails to teach the invention of independent claim 8 and therefore dependent claims 9-17.

The newly cited Miyake et al. patent 4,805,359

A review of the Miyake et al. patent 4,805,359 teaches that he discloses a method of damping floor vibrations. Independent claim 8 of the present application calls our for use of the shock isolator as the sole support for the unitary platform.

a shock mount for supporting said unitary platform in a condition where the sole support for the unitary platform is the shock mount so that the unitary platform is free to remain spatially fixed to isolate the unitary platform from the effects of high "g" shocks.
(emphasis added)

This is in direct contrast to the Miyake reference which uses "ball bearings 3" (see Figure 4A) to provide the support for his floor. It is well known that ball bearings are hard spheres lacking shock isolation properties. The Miyake reference limits vertical movement of his floor since he supports his floor on ball bearings. In addition, the Miyake vibration damping system is limited to rotational or linear displacement in the x-y plane. Thus, the Miyake reference not only fails to spatially isolate his floor but he fails to teach the use of a shock isolator to prove a sole support for the unitary platform since he uses ball bearings to support his floor.

In addition the Miyake et al reference has a two part support device, namely ball bearings for vertical support and a center damping system or spring damper that comprises a shallow vessel containing a viscous fluid to damp out any rapid motions in the x-y plane. Thus, even though Miyake has a two part system the Miyake floor cannot remain spatially fixed since his bearing transmits vertical motion to his floor.

Based on the review of the Miyake et al patent it is evident that Miyake does not teach the shock isolator system as claimed in claims 8 - 17. Accordingly, it is submitted that independent claim 8 and dependent claims 9-17 are allowable over the art of Miyake et al.

In summary, it is submitted that claims 8-17 are in allowable form and a notice of allowance is respectfully requested.

Respectfully submitted,
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